

## REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

A provisional telephone election was made with traverse on April 2, 2008 to prosecute Claims 1-9 and 48-57 of Group I. Applicant affirms this election. The Group I claims referenced at the top of page two and the bottom of page three of the Official Action are listed as Claims 1-9 and 48-57 rather than Claims 1-18 and 48-57. During a brief telephone conversation, the Examiner confirmed that this is a typographical error, and that the Group I claims are Claims 1-18 and 48-57.

By this Amendment, the specification and Claims 1, 3, 10, 12, 15, 48 and 52 are amended, Claims 58-71 are added, and non-elected Claims 19-47 are canceled without prejudice to or disclaimer of the subject matter recited therein. Thus, Claims 1-18 and 48-71 are pending in this application. Applicant reserves the right to file a divisional application to pursue the subject matter of the non-elected claims. Support for the amendment to Claim 48 can be found, for example, on page 9, lines 21-25. Support for new Claims 58-71 can be found, for example, on page 14, line 26 to page 15, line 3 and on page 28, line 17 to page 30, line 31. No new matter is added.

Independent Claims 1, 10, 48 and 52 are the only independent claims at issue. Independent Claims 1, 10 and 52 are directed to RFID tags including, *inter alia*, a substrate, an RFID integrated circuit disposed on the top surface of the substrate, a first electrically conductive region associated with the top surface of the substrate and electrically coupled to the RFID integrated circuit, and a second electrically conductive region associated with the bottom surface of the substrate and electrically coupled to the first conductive region. In Claim 1, the first and second

conductive regions form an RFID antenna, and the RFID integrated circuit, the first conductive region and the second conductive region together provide an RFID function. In Claims 10 and 52, the first conductive region forms an RFID antenna.

Independent Claim 48 is directed to an RFID tag including, *inter alia*, a substrate, an electrically conductive region disposed on the bottom surface of the substrate, an attachment layer for attaching the tag to a receiving surface, and a first adhesion modifying layer modifying adhesion of the electrically conductive region so as to provide areas of different adhesion strength.

The Official Action rejects independent Claims 1, 10, 48 and 52 under 35 U.S.C. §103(a) over U.S. Patent No. 6,794,000 to Adams et al. ("Adams") in view of U.S. Patent No. 6,094,133 to Shimamura et al. ("Shimamura").

With respect to independent Claims 1, 10 and 52, the Official Action acknowledges that Adams fails to disclose an RFID tag including the claimed first electrically conductive region. The Official Action takes the position that Shimamura discloses the claimed first electrically conductive region. Shimamura discloses an LC resonance tag 1 including metal conductors 4 and 5 respectively disposed above and below a dielectric film 2 (see Fig. 8 and col. 5, lines 42-58). The Official Action takes the position that the upper metal conductor 4 corresponds to the claimed first electrically conductive region, and that it would have been obvious to modify the RFID label disclosed by Adams with Shimamura's upper metal conductor 4 to result in the combination of features recited in independent Claims 1, 10 and 52. Applicant respectfully disagrees.

In particular, one skilled in the art would not have modified the RFID label disclosed by Adams with Shimamura's upper metal conductor 4 to result in first and

second conductive regions forming an RFID antenna, and a RFID integrated circuit, a first conductive region and a second conductive region together providing an RFID function as recited in independent Claim 1. Further, one skilled in the art would not have modified the RFID label disclosed by Adams with Shimamura's upper metal conductor 4 to result in a first conductive region forming an RFID antenna as recited in independent Claims 10 and 52.

Adams discloses an RFID label including a transponder carrier film 14, a release agent 16, a printed antenna 18 and a patterned adhesive 20 (see Fig. 1). Adams discloses that the patterned adhesive 20 is "used to ensure that a label with a transponder may not be removed without destroying transponder operability (col. 1, lines 13-15, emphasis added). Specifically, the release agent 16 is configured to be in contact with the patterned adhesive 20 so that when the RFID label is removed from the target surface 22, the printed antenna 18 separates from the transponder carrier film 14 (Abstract; col. 2, lines 12-14; and col. 3, lines 23-25 and 40-44). The separation of the printed antenna 18 from the transponder carrier film 14 destroys the RFID function of the label (see col. 3, line 42). Thus, Adams' RFID label is configured to destroy transponder operability when the label is removed.

If the RFID label disclosed by Adams was modified to include Shimamura's upper metal conductor 4 forming an antenna either with the printed antenna 18 or forming an antenna by itself, the RFID function of the label would not be totally destroyed when the printed antenna 18 is separated from the transponder carrier film 14. That is, the upper metal conductor 4 would still be connected to the transponder carrier film 14, thereby maintaining some RFID function or transponder operability between the upper metal conductor 4 and the transponder carrier film 14. Because

the addition of Shimamura's upper metal conductor 4 would maintain some RFID function in Adams' RFID label, the separation of the printed antenna 18 from the transponder carrier film 14 would not destroy the RFID function of the label as intended by Adams. Thus, the modification proposed by the Official Action would render Adams' RFID label unsatisfactory for its intended purpose (MPEP §2143.01(V)) and would change the principle of operation of the RFID label (MPEP §2143.01(VI)).

In addition, there is no reason why one skilled in the art would have modified Adams' RFID label to include Shimamura's upper metal conductor 4. The Official Action takes the position that modifying Adams' RFID label to include Shimamura's upper metal conductor 4 would "increas[e] the detection sensitivity" of the RFID label (see page 6 of the Official Action). Applicant respectfully disagrees. Indeed, the proposed modification would decrease detection sensitivity of the RFID label because Shimamura's upper metal conductor 4 would maintain some RFID function in the resulting RFID label, as discussed above, making detection of a disruption to the RFID label more difficult.

One skilled in the art would not make such a modification of Adams' RFID label. The Official Action fails to consider the references and claims as a whole and relies on impermissible hindsight using knowledge gleaned only from Applicant's disclosure (see MPEP §2145(X)(A)). Thus, it would not have been obvious to one skilled in the art to modify the RFID label disclosed by Adams to include Shimamura's upper metal conductor 4 forming an antenna either with the printed antenna 18 or forming an antenna by itself. Thus, independent Claims 1, 10 and 52

are patentable over the combination of Adams and Shimamura for at least these reasons.

With respect to independent Claim 48, the combination of Adams and Shimamura fails to disclose, and would not have rendered obvious, an RFID tag that includes, in combination with the other claimed features, a first adhesion modifying layer modifying adhesion of the electrically conductive region so as to provide areas of different adhesion strength. The Official Action takes the position that Adams' release agent 16 corresponds to the claimed first adhesion modifying layer. Adams discloses that the patterned adhesive 20, not the release agent 16, has a pattern with varying areas of adhesive footprints to create a range of adhesive strength (see col. 3, lines 14-16). Thus, the release agent 16 does not modify adhesion of the printed antenna 18 ("electrically conductive region") to provide areas of different adhesion strength. Therefore, the release agent 16 cannot be said to correspond to the claimed first adhesion modifying layer of independent Claim 48. Shimamura fails to overcome this deficiency of Adams. Thus, independent Claim 48 is patentable over the combination of Adams and Shimamura for at least this reason.

Therefore, withdrawal of the rejection of independent Claims 1, 10, 48 and 52 is respectfully requested.

Claims 2-9, 11-18, 49-51 and 53-57 are patentable over the applied references at least by virtue of their dependence from allowable independent Claims 1, 10, 48 and 52, respectively. Thus, a detailed discussion of the additional distinguishing features recited in these dependent claims is not set forth at this time.

The Official Action rejects independent Claims 1, 10, 48 and 52 on the ground of non-statutory obviousness-type double patenting over Claims 37, 51 and 70 of

U.S. Patent No. 6,888,509 to Atherton, in view of U.S. Patent No. 6,181,287 to Beigel.

The Official Action acknowledges that Claims 37, 51 and 70 of Atherton fail to recite a second electrically conductive region associated with the bottom surface of the substrate and electrically coupled to a first conductive region, both conductive regions forming RFID antennas. The Official Action takes the position that Beigel's terminal area 17 and antenna element 14 (see Fig. 2) correspond to the claimed first and second electrically conductive regions, and that it would have been obvious to modify Claims 37, 51 and 70 of Atherton to include Beigel's terminal area 17 and antenna element 14. Applicant respectfully disagrees.

In particular, there is no reason why one skilled in the art would have modified Claims 37, 51 and 70 of Atherton to include Beigel's terminal area 17 and antenna element 14. The Official Action takes the position that modifying Claims 37, 51 and 70 of Atherton to include Beigel's terminal area 17 and antenna element 14 would "increas[e] sensitivity of RFID tamper detection" (see page 5 of the Official Action). However, the proposed modification would decrease detection sensitivity of the RFID rather than increase the sensitivity. That is, if the systems and label in Claims 37, 51 and 70 of Atherton were modified to include both first and second conductive regions forming RFID antennas, one of the conductive regions would still be electrically coupled to the RFID components when the other conductive region is altered by removing the system or label from a surface. The conductive region still electrically coupled to the RFID components would maintain some RFID function between that conductive region and the RFID components. Because some RFID function between that conductive region and the RFID components would be maintained, it

would be more difficult to detect a disruption in the system or label than if RFID function was not present. Thus, the proposed modification would actually decrease detection sensitivity of the RFID rather than increase the sensitivity. Accordingly, the stated reason for modifying the invention recited in Claims 37, 51 and 70 of Atherton is incorrect. Insufficient evidence has been presented to support the obviousness-type double patenting rejection. Withdrawal of the rejection is respectfully requested.

New Claims 58-71 are presented for consideration and define other aspects of the RFID tag. For example, independent Claim 58 recites, *inter alia*, an RF read/write device communicating with a memory of the RFID integrated circuit, and that the RF read/write device writes information into the memory of the RFID integrated circuit indicating that the electrically conductive region has been disrupted. Independent Claim 63 recites, *inter alia*, an RF read/write device communicating with the memory of the RFID integrated circuit, and that the RF read/write device writes into the memory of the RFID integrated circuit an initial value of at least one electrical property of the electrically conductive region, and later reads a subsequent value of the at least one electrical property detected by the RFID integrated circuit. The RFID integrated circuit compares the subsequent value with the initial value written in the memory of the RFID integrated circuit. None of the applied references discloses or suggests these features in combination with the other claimed elements. Thus, independent Claims 58 and 63 are patentable over the applied references for at least these reasons.

Dependent Claims 59-62 and 64-71 are patentable over the applied references at least by virtue of their dependence from independent Claims 58 and 63, as well as for the additional features, these claims recite.

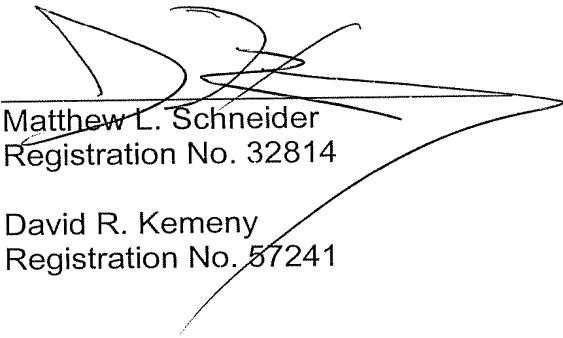
Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

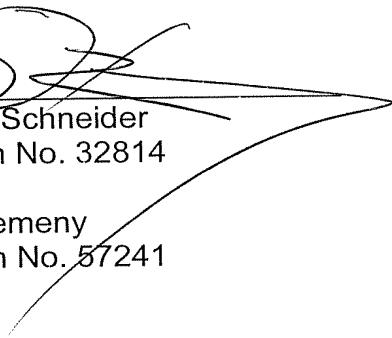
Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: December 1, 2008

By:

  
Matthew L. Schneider  
Registration No. 32814

  
David R. Kemeny  
Registration No. 57241

P.O. Box 1404  
Alexandria, VA 22313-1404  
703 836 6620